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MONROE

A Pre-Wheat Soybean Variety for Northern Ohio

OHIO AGRICULTURAL EXPERIMENT STATION

WOOSTER, OHIO

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Shown on Cover: Art and Ed Schlessman of Avery, Ohio inspect Monroe soybean seed combined from one of the first increased plots of the soybeans in Erie County.

MONROE

A Pre-Wheat Soybean Variety for Northern Ohio

by

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Those who have been looking for an early maturing variety of soybeans that will also stand satisfactorily for combining should be pleased with the new MONROE soybean. MONROE soybeans mature early enough in Northern Ohio to permit timely seeding of winter wheat. This will make it much easier to fit the soybean crop into present rotations. After seven years testing at several locations each year in Ohio the following comparisons can be made:

1. It is four to five days earlier than Earlyana which is our earliest recommended variety at present.
2. It stands better than Earlyana but not as well as Richland.
3. It is very similar to Earlyana in height, yield, oil content and protein content.
4. It is four to five inches taller than Richland, matures about ten days earlier and yields as well.

Although the MONROE variety does not possess all desirable qualities that an early variety should have, it is enough better than existing early varieties to warrant extensive use. Acreage will be limited for a couple of years until the seed supply is larger.

If You Want Some MONROE Soybean Seed:

The supply of MONROE soybean seed available for 1949 planting in Ohio is very limited. All of the available seed must be planted for the production of certified seed in 1949. Anyone getting seed of MONROE soybeans for 1949 planting must agree to comply with certain regulations and restrictions. Some of these are: to agree to plant this foundation seed at a recommended rate, to apply to the Ohio Seed Improvement Association, Columbus 10, Ohio for inspection and certification of crop produced, and to sell the seed produced in 1949 at a price not to exceed the maximum price set by the Committee on Crop Release and Distribution.

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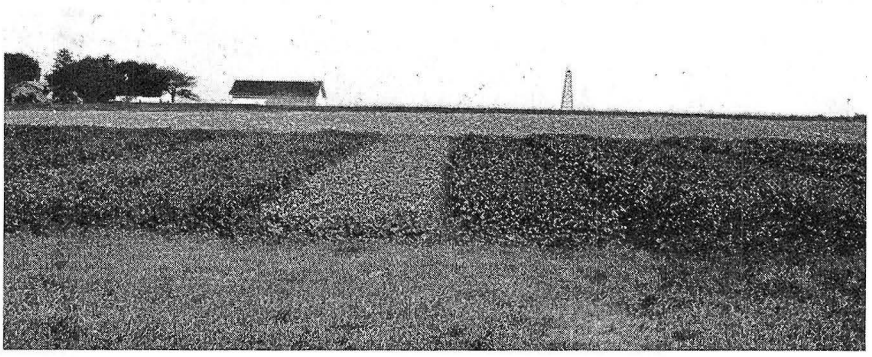
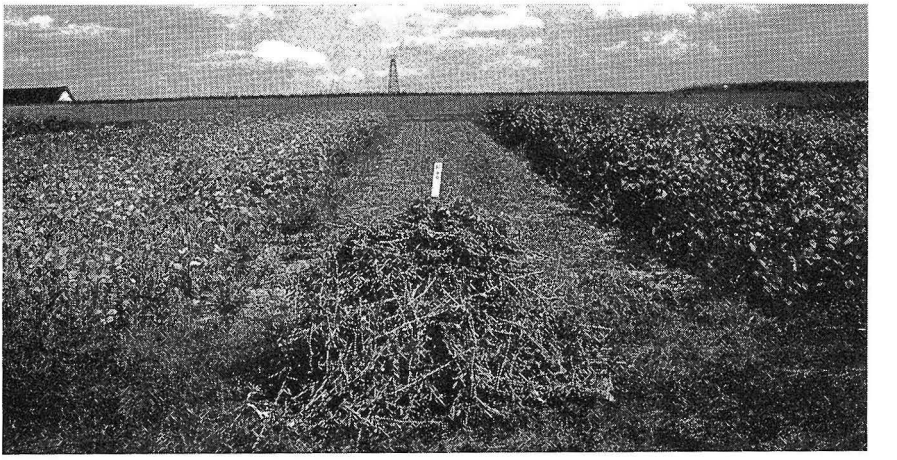
Ohio seed producers must make their application for MONROE soybean seed to Mr. J. E. Van Fossen, Ohio Hybrid Seed Corn Producers, Croton, Ohio by February 20, 1949 in order to have their application considered. The price for this seed will be $5.50 per bushel. Since a reduced rate of planting will be requested for those who receive seed, your request should indicate both the number of bushels desired as well as the acreage intended. This information will be of value to the allotment committee. Since MONROE soybeans are especially adapted to northern Ohio, most of the seed will be allotted to that section of the state.

MONROE Developed by Hybridization

Crop varieties come from three general sources—introduction, selection and hybridization. MONROE soybeans were developed by hybridization. In 1937, the varieties Mukden and Mandarin were crossed at Urbana, Illinois. In 1940, bulked seed from this cross was received in Ohio and space planted at the Strongsville Station. Individual plant selections were made from this material and grown as plant rows. Promising plant rows were first yield tested in 1942. Single plant selections were made in 1944 to start a pure seed increase program. The seed from these selected plants has been increased until the present. Approximately 1,500 bushels of MONROE soybeans are available for seed producers in 1949. The MONROE soybeans were developed cooperatively by the Ohio



Plots at the Ohio Agricultural Experiment Station at Wooster showing the relative maturity of Earlyana, Monroe, and Hawkeye soybeans. Monroe is seen in the light section shown in the center of the picture.



Monroe harvested (center), Earlyana soon ready (left), and Hawkeye (right), just beginning to change color.

Agricultural Experiment Station, and the U. S. Regional Soybean Laboratory[1]. The states of Michigan, North Dakota, Indiana, New York, Wisconsin, Minnesota, Iowa, South Dakota and Illinois have all aided in evaluating this strain. During the testing years it has been known as H5. Not until 1951, which is 14 years after the original cross was made, will there be adequate seed of MONROE soybeans.

MONROE Plant and Seed Characteristics

The plants are tall and rather erect with gray pubesence (hairs on stem and leaves) and white flowers. The plants branch some in thin plantings. This is the only soybean variety recommended in Ohio with gray pubescence and white flowers. When mature the pods are light brown and average about 2.5 seeds per pod.

The seed is light yellow in color with a colorless hilum (seed scar). It appears a great deal like Earlyana except that it does not have the brown spot at the base of the hilum like Earlyana. The seeds are only slightly smaller than Earlyana. The seed quality is very good.

[1]The U. S. Regional Soybean Laboratory is a cooperative organization participated in by the Bureau of Plant Industry, Soils, and Agricultural Engineering, Agricultural Research Administration of the U. S. Department of Agriculture and by 24 state agricultural experiment stations.

Although Monroe is satisfactory for all of northern Ohio, the counties indicated on map at left are in special need for such an early variety.

Where Should MONROE Soybeans Be Planted?

In the northern half of Ohio where an early maturing variety of soybeans is needed to precede wheat in the rotation, MONROE should replace Earlyana and all other "early" varieties not recommended for production in Ohio. Since it is a tall growing variety it will have a place on the thinner soils as it will grow tall enough for combining.

It may also be used anywhere in the state where it is necessary to have a very early variety for some special reason. It may serve as an emergency crop for late planting in case of a very late spring or loss of another crop.

Summary of Six Years Data[1] Comparing the Important Agronomic and Chemical Characteristics of Earlyana and MONROE Soybean Varieties.

Ohio Data 1942-1947 inclusive, 46 tests, 9 locations.

	No. of Tests	Yield in Bu/A (E) Earlyana:	(M) Monroe	Maturity Index[2] E	M	Lodging Index[3] E	M	Height in inches E	M	% Protein[4] E	M	% Oil[4] E	M
1942	2	33.8	34.8	+ 6	0	2.5	1.2	37	34	43.9	41.2	20.1	19.8
1943	2	31.5	31.5	+ 7	0	3.8	2.8	38	38	43.8	43.3	19.7	19.8
1944	7	18.9	16.5	+10	0	1.8	1.2	26	25	43.6	43.9	20.2	20.1
1945	10	24.2	27.7	+ 2	0	3.2	1.6	33	34	43.8	43.1	18.9	19.0
1946	9	25.7	24.6	+ 2	0	2.2	1.6	30	30	41.0	42.6	20.1	19.4
1947	16	29.1	30.0	+ 3	0	3.0	2.4	32	36	43.8	44.1	20.0	20.1
1942-1947[5]		**26.1**	**26.7**	**+ 4**	**0**	**2.7**	**1.8**	**31**	**33**	**43.2**	**43.4**	**19.8**	**19.7**

Data from Illinois, Indiana, Iowa, New York, North Dakota, Michigan, Minnesota, South Dakota, Wisconsin. 1943-1947 inclusive, 42 tests, 14 different locations.

Wisconsin	10	23.7	24.1	+6	0	2.4	1.5	37	36	43.4	43.1	19.9	19.6
Michigan	5	24.1	24.6	+5	0	1.4	1.0	32	34	42.4	43.0	19.6	19.1
Minnesota	9	28.4	28.7	+7	0	3.5	2.5	38	40	42.1	42.2	19.6	19.5
North Dakota	1	3.8[6]	10.7	—	—	—	—	39	40	37.1	38.1	17.1	17.8
Indiana	1	28.5	27.2	+5	0	2.4	1.7	37	36	43.2	43.7	20.2	19.5
South Dakota	5	22.6	19.8	+5	0	2.8	2.1	30	28	41.0	41.6	19.6	19.6
Iowa	8	27.0	26.6	+2	0	2.4	1.7	36	36	42.4	43.2	19.8	19.6
New York	1	26.5	26.6	—	—	—	—	26	26	42.4	41.3	18.4	18.5
Illinois	2	32.0	30.5	+6	0	3.2	2.6	39	39	42.4	42.4	21.0	21.0
1943-1947[5]		**27.4**	**27.9**	**+5**	**0**	**2.6**	**1.8**	**33**	**33**	**43.1**	**42.8**	**19.9**	**19.7**

[1] Data from states other than Ohio taken from Mimeographed Reports from Regional Soybean Laboratory for years indicated.

[2]Days later (+) than Monroe (M).

[3]1—all plants erect; 5—all plants prostrate.

[4]Moisture free basis.

[5]Weighted averages.

[6]The Fargo test was planted late (June 10) and was severely frosted (Sept. 10). This stopped growth in the later strains and made the yield and chemical composition quite abnormal.

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